Priority #1

Access DB# 166580

# SEARCH REQUEST FORM

**Scientific and Technical Information Center**

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 9-20-2005

Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/800,195

Mail Box and Bldg/Room Location: 9D60 (Rem.) Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf - Ctr
SEP 2 ...
Pat. & T.M. Office

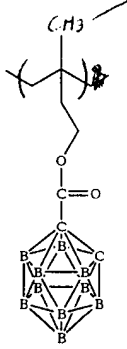
Title of Invention: Plz. Lee B.b.

Inventors (please provide full names):

Earliest Priority Filing Date:

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Plz. search for a resist composition comprising a boron-containing polymer having the following formula:

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**STAFF USE ONLY**

Searcher: ROS

Searcher Phone #:

Searcher Location:

Date Searcher Picked Up:

Date Completed: 9/28/05

Searcher Prep & Review Time: 30

Clerical Prep Time:

Online Time: 54

**Type of Search**

NA Sequence (#)

AA Sequence (#)

Structure (#) 1

Bibliographic

Litigation

Fulltext

Patent Family

Other

**Vendors and cost where applicable**

STN

Dialog

Questel/Orbit

Dr.Link

Lexis/Nexis

Sequence Systems

WWW/Internet

Other (specify)

PTO-1590 (8-01)

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     (FILE 'HOME' ENTERED AT 10:04:57 ON 28 SEP 2005)

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L2                STRUCTURE
L3                STRUCTURE

     FILE 'REGISTRY' ENTERED AT 11:19:22 ON 28 SEP 2005
L4              1 SEA SSS SAM L3
                  D L4 QUE STAT
                  D SCAN
                  D SAV
L5              4 SEA SSS FUL L3
                  SAV L5 LEE195/A

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L6              2 SEA ABB=ON  PLU=ON  L5

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L3                STR
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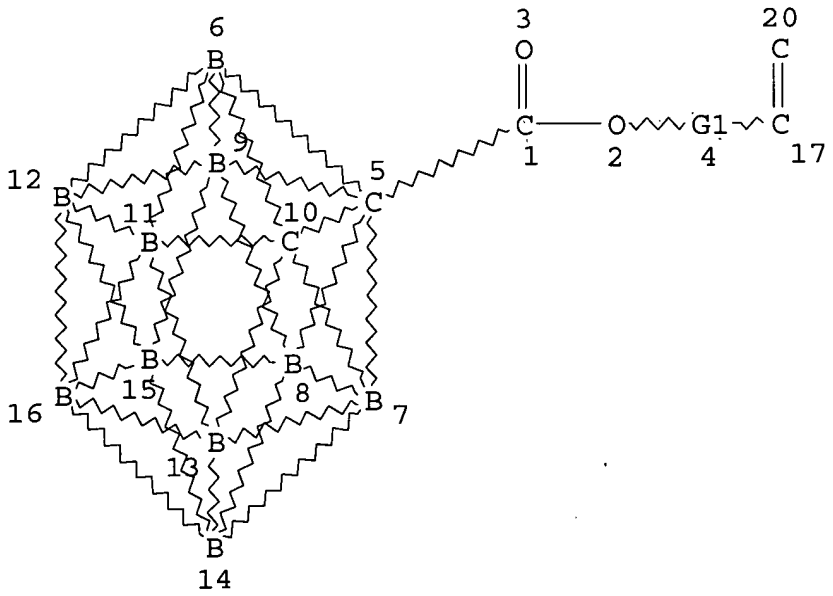


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REP G1=(0-5) C
NODE ATTRIBUTES:
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DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

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L6 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:230711 Document No. 141:251316 New strategies for lithography at short wavelengths. Ober, Christopher K.; Kwark, Young-Je; Bravo-Vasquez, J.-Pablo; Dai, Junyan; Hamad, Alyssandrea (Materials Science and Engineering, Cornell University, Ithaca, NY, USA). PMSE Preprints, 90, 22 (English) 2004. CODEN: PPMRA9. ISSN: 1550-6703. Publisher: American Chemical Society.

AB New developments are discussed in neg. tone and pos. tone chem. amplified Si and B-contg. photoresists designed for high resoln. and high etch resistance. Highly transparent polysilane and boron-contg. copolymers have shown promising results as resists materials. Also simple high mol. wt. mols. have been proven suitable for lithog. and it is expected they will address line-edge roughness concerns. With the advent of EUV lithog. std. resists materials will have difficulty fulfilling these new stringent requirements and we believe our findings provide new insight and directions in the search for effective EUV resists.

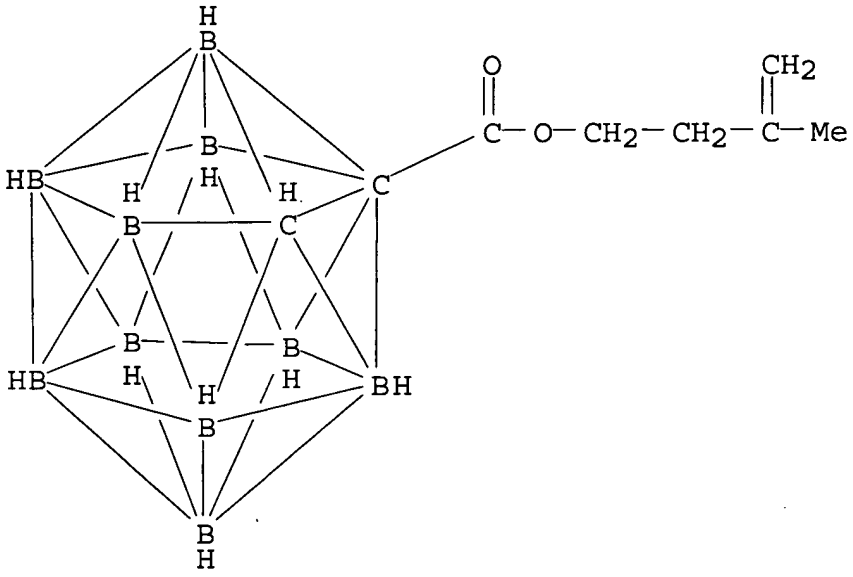
IT **749249-05-6D**, derivs.
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(chem. amplified Si and B-contg. photoresists for high resoln. and high etch resistance)

RN 749249-05-6 HCAPLUS

CN 1,2-Dicarbadodecaborane(12)-1-carboxylic acid, 3-methyl-3-butenyl ester, polymer with ethenylbenzene and 2-methyl-3-buten-1-ol (9CI) (CA INDEX NAME)

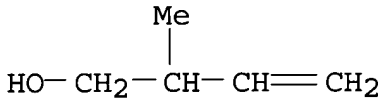
CM 1

CRN 749249-04-5
CMF C8 H20 B10 O2



CM 2

CRN 4516-90-9
CMF C5 H10 O



CM 3

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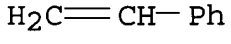
CMF C8 H8



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 749249-01-2D, derivs. 749249-03-4D, derivs. **749249-05-6D**

, derivs. 749249-06-7
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(chem. amplified Si and B-contg. photoresists for high resoln. and high etch resistance)

L6 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
1990:532254 Document No. 113:132254 Comparison of three methods for the synthesis of carboranecarboxylic acid esters. Kahl, Stephen B. (Dep. Pharm. Chem., Univ. California, San Francisco, CA, 94143-0446, USA). Tetrahedron Letters, 31(11), 1517-20 (English) 1990. CODEN: TELEAY. ISSN: 0040-4039. OTHER SOURCES: CASREACT 113:132254.

AB Three procedures for the esterification of polyhedral carboranecarboxylic acids with long chain unsatd. fatty alcs. are compared with regard to rate of reaction, ease of isolation and over-all yield. The optimum procedure is based on room temp. reaction of the acid chloride and alc. in the presence of 4-dimethylaminopyridine in CH2Cl2.

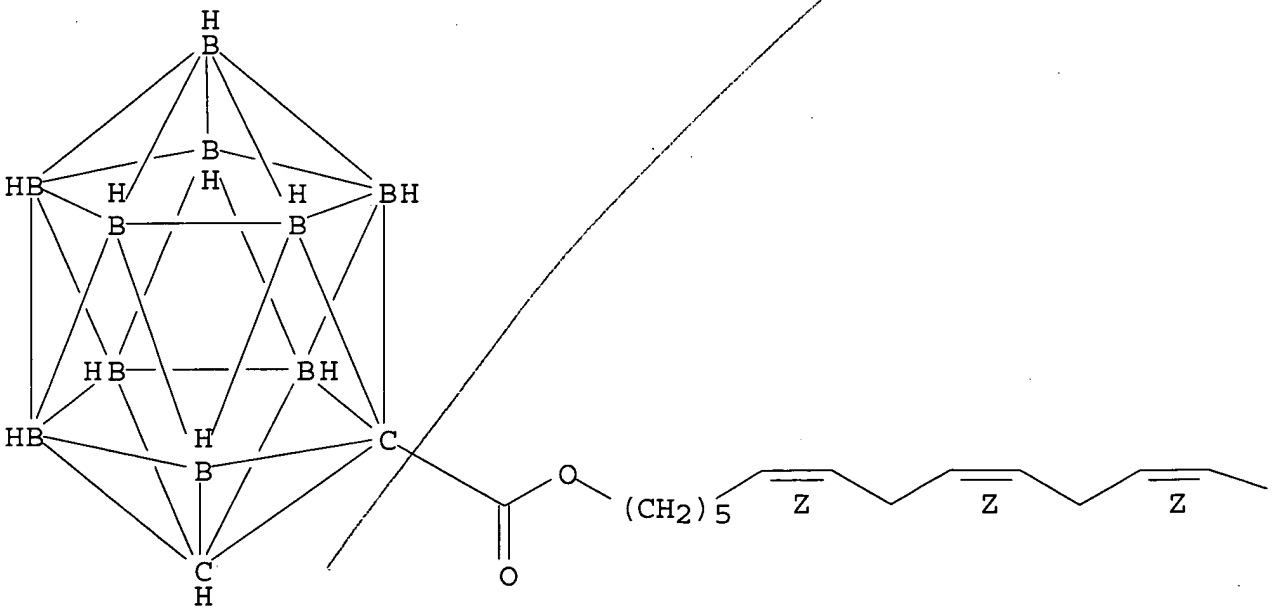
IT **129408-91-9P 129408-96-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 129408-91-9 HCAPLUS

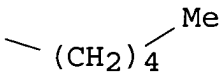
CN 1,2-Dicarbadodecaborane(12)-1-carboxylic acid, 6,9,12-octadecatrienyl ester, (Z,Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



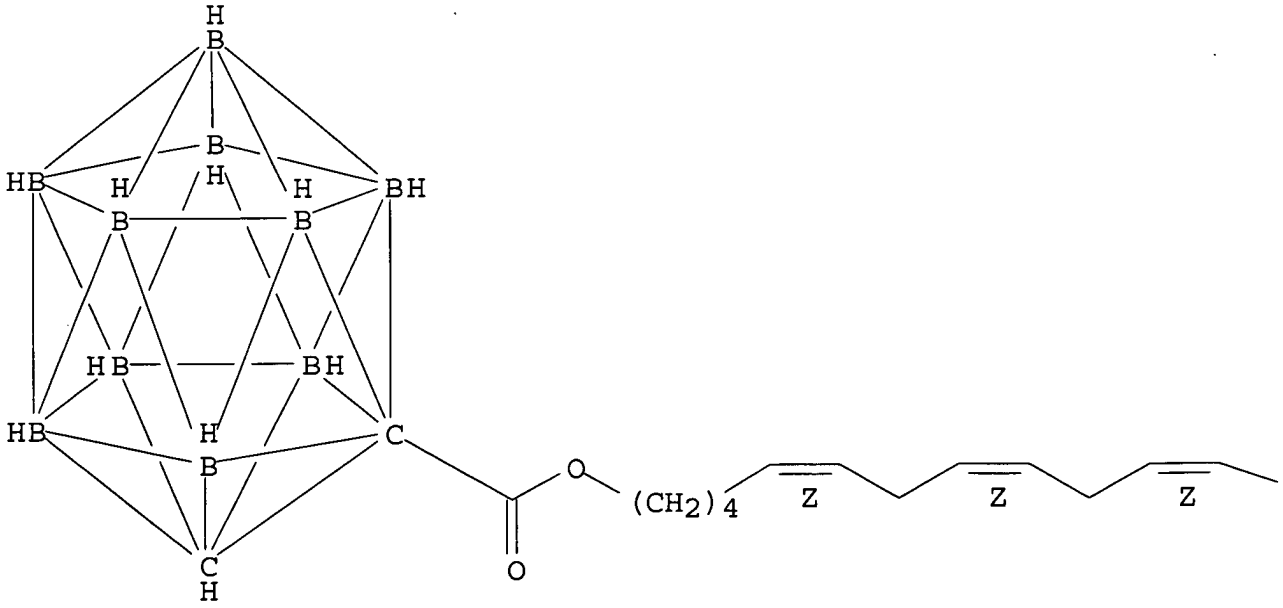
PAGE 1-B



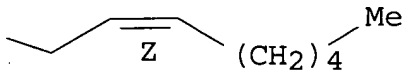
RN 129408-96-4 HCAPLUS
CN 1,2-Dicarbadodecaborane(12)-1-carboxylic acid, 5,8,11,14-eicosatetraenyl ester, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B




CC 29-4 (Organometallic and Organometalloidal Compounds)
IT 129408-89-5P 129408-90-8P **129408-91-9P** 129408-92-0P
129408-93-1P 129408-94-2P 129408-95-3P **129408-96-4P**
129408-97-5P 129408-98-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

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